data requests from one graphics processor to another graphics processor without accessing a system AGP bus, based upon a memory mapping information stored in a routing table or register set. The Caruk reference appears to be silent as to, among other things, a data bridge having a read only memory for storing at least initial values and mask values for each ASIC of the plurality of ASICs. The ROM storing configuration of Caruk cited in the office action, namely column 16, lines 22-32, appears to be unrelated to Applicants' claimed invention as the cited section describes a mode indicator that may be stored in read only memory wherein the mode indicator, as noted in column 17, is used by the bridge to determine its current mode of operation such as if the bridge is in a transparent bridge mode or an encapsulated bridge mode. The bridge mode information stored in memory appears to be unrelated to initial values and mask values for each ASIC of a plurality of ASICs. In fact, it appears that the Caruk does not appear to be dealing with the same problem encountered by Applicants. As such, combining the teachings of the ROM of Caruk with any of the cited references does not render claimed invention obvious as the Caruk reference teaches storing data bridge mode information in a ROM. Applicants claim a completely different system.

In addition, the combination of the teachings in Surugucchi also do not render the claimed invention obvious. The Surugucchi reference has been cited as teaching "a bridge (210 or alternatively 210 and 212 taken together) including a mask register storing mask values for masking base address registers in accordance with the attached peripherals." However, there is no citing to any specific column or line number for such a teaching. However Applicants, upon reviewing the reference note that the reference to a mask appears with respect to Fig. 10 which describes the configuration register space 258 that are set under the control of the controller procedure 236. This controller procedure 236 is actually stored in memory 216 which is not in the bridge 210 or 212. As such, Surugucchi teaches a completely different approach taken and

claimed by Applicants. Moreover, combining the teachings of Surugucchi with those of Caruk appear to be improper since there does not appear to be any motivation to do so. For example, the Caruk reference does not appear to address the issue faced by Applicants or that faced by Surugucchi. In any event, combining the teachings of Caruk with those of Surugucchi would appear to simply result in a system that stored bridge circuit mode information in memory and I/O control information in a separate memory that is not located in a bridge (as taught by Surugucchi). Accordingly, the claims are in condition for allowance.

The Venkat reference has been cited as teaching storing the initial base addresses in the configuration space of devices. The office action states that it would have been obvious to store initial values in the configuration space of Caruk in view of Surugucchi because this would have consolidated necessary configuration data. However, as noted above, Surugucchi does not store initial values and mask values for each ASIC in a data bridge that contains read only memory, nor does Caruk. Accordingly, the claims are in condition for allowance. Moreover, the rejection does not appear to apply any teachings of the Venkat reference to any particular claim language nor does it indicate any motivation or reason for applying the teachings of the Venkat reference. As such, the rejection does not appear not to provide a prima facia showing of obviousness and as such, the claims are in condition for allowance for this reason as well.

Claims 2, 14, 18, 20 and 24 are believed to be allowable at least as depending from an allowable base claim.

Claims 4 and 22 are also believed to be allowable for the reasons stated above with respect to the Caruk reference. Moreover, the claim requires that the data bridge upon initialization, forms a base address register that are queried by the interface or command registers or configuration registers. Again, the Caruk reference is silent as to initialization of base address registers in the ROM stored in the data bridge as Caruk instead appears to teach that the ROM in

the data bridge stores mode information indicating which mode the data bridge is in. Accordingly, these claims are also believed to be in condition for allowance.

As to claims 5, 6, 13, 16, 23 and 26, Applicants respectfully reassert the remarks made above and as such these claims are also believed to be in condition for allowance. In addition, the claims require additional limitations in that each base address in a data bridge has a corresponding initial value and mask values that are stored in the memory for a plurality of base address registers. Accordingly, these claims are also believed to be in condition for allowance.

Claims 7, 15 and 25 have also been rejected under the Caruk reference, however Applicants respectfully submit that these claims are also in condition for allowance for the reasons noted above. In addition, the office action admits that Caruk does not teach a data bridge read only memory that stores initial values and mask values of ASICs. However, these claims are rejected solely on the Caruk reference and these claims require, among other things, that the data bridge forms base address registers as a function of initial values and mask values stored in the read only memory. Since the office action as to claim 1 admits that Caruk does not teach a data bridge read only memory storing initial values and mask values for ASICs, these claims cannot be rendered obvious in view of Caruk. Accordingly, Applicants respectfully submit that these claims are also in condition for allowance.

As to claims 9 and 17, these claims are believed to be allowable at least as depending from an allowable base claim.

Claims 3, 12 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Caruk et al. in view of Surugucchi et al. and Venkat as applied to claim 1 above, and further in view of Applicants' admitted prior art. Applicants respectfully reassert the relevant remarks made above with respect to claim 1 and accordingly, these claims are also in condition for allowance.

Accordingly, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

Date: _Sept. 22, 2004_

By: _____
Christopher J. Reckamp
Registration No. 34,414

Vedder, Price, Kaufman & Kammholz, P.C.
222 North LaSalle Street
Chicago, Illinois 60601
Phone: (312) 609-7599
Fax: (312) 609-5005